

## DETAILED ACTION

1. This office action is based on the examiner initiated telephonic interview with applicants' agent, Mr. Rajiv P. Patel (Reg. No. 39,327) on June 9<sup>th</sup>, 2011, and the agreement reached by both parties on amended claims 1, 7 and 13.
2. Claims 1-4, 6-8, 10-14 and 16-18 are allowed.

## CLAIM'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
4. Authorization for this examiner's amendment was given in a telephonic message on June 9<sup>th</sup>, 2011 by Applicants' representative Mr. Rajiv P. Patel (Reg. No. 39,327) following a previous telephonic conferences with Mr. Patel on June 9<sup>th</sup>, 2011 which some minor issues have been resolved through mutual agreements between examiner and Mr. Patel to place the claims in the condition for allowance.

### IN THE CLAIMS:

5. Claims 1, 7 and 13 are amended as follows:
  1. (Currently Amended) An apparatus having at least one processor for converting software code of a source application on a source platform into software code of a target application on a target platform[[ ]], the apparatus comprising:

an inputting means for accepting the source code of the source application to analyse ~~analyse~~ analyze business logic of the source application, obtaining User Interface (UI) details of the source application, receiving a validation scheme of a source front-end interface, obtaining (1) a definitions of a target back-end system, (2) existing test scripts to facilitate quality control of generated software code for the target application, (3) source code entry points to business processes, (4) target environment specification including the target platform, languages to be used, target database, coding standards, target architecture and framework, (5) third party components, (6) existing applications to be plugged with the target application, and (7) sample code for the target application;

an ~~analysing~~ analyzing means for ~~analysing~~ analyzing provided source schemes to create target schemes,

~~analysing~~ analyzing the business logic of the source application to create workflow diagrams that represent processes of the source application,

identifying code segments of the source application, and

~~analysing~~ analyzing the target environment to generate a target architecture and associated technology;

a setting up means for generating a custom knowledge base for the software code conversion that is responsive to no existing knowledge base for particular migration existing, wherein the custom knowledge base comprises a relational database comprising source and target code patterns and attributes and residing on a non-transitory computer-readable storage medium;

a processing means for conversion of source code into a format of the target environment specification, using fuzzy rules, wherein the source code is passed through a knowledge engine for a plurality of iterations, the knowledge engine remains coupled to the custom knowledge base during the plurality of iterations for conversion of the source code into the format of the target

environment specification, the knowledge base is updated to include additional structured information of the source platform and the source application with respect to the target platform and the target environment specification after each iteration to cause the knowledge engine to enhance source code conversion in subsequent iterations; and

a documenting means for generation of a report comprising a portion of the source code of the source application that is not converted automatically for manual conversion.

7. (Currently Amended) A method executable by at least one processor for converting software code of a source application on a source platform into software code of a target application on a target platform, the method comprising:

accepting the source code of the source application to ~~analyse~~ analyze business logic of the source application;

obtaining User Interface (UI) details of the source application;

receiving a validation scheme of a source front-end interface;

obtaining (1) a definition of a target back-end system, (2) existing test scripts to facilitate quality control of generated software code for the target application, (3) source code entry points to business processes, (4) target environment specification including the target platform, languages to be used, target database, coding standards, target architecture and framework, (5) third party components, (6) existing applications to be plugged with the target application, and (7) sample code for the target application;

~~analysing~~ analyzing provided source schemes to create target schemes;

~~analysing~~ analyzing the business logic of the source application to create workflow diagrams that represent processes of the source application;

identifying code segments of the source application;

~~analysing~~ analyzing the target environment to generate a target architecture and associated technology;

responsive to no existing knowledge base for the software code conversion existing, generating a custom knowledge base for the software code conversion, wherein the custom knowledge base comprises a relational database comprising source and target code patterns and attributes and residing on a non-transitory computer-readable storage medium;

converting the source code into a format of the target environment specification using fuzzy rules, wherein the source code is passed through a knowledge engine for a plurality of iterations, the knowledge engine remains coupled to the custom knowledge base during the plurality of iterations for conversion of the source code into the format of the target environment specification, the custom knowledge base is updated to include additional structured information of the source platform and the source application with respect to the target platform and the target environment specification after each iteration to cause the knowledge engine to enhance source code conversion in subsequent iterations; and

generating a report comprising a portion of the source code of the source application that is not converted automatically for manual conversion.

13. (Currently Amended) A non-transitory computer-readable storage medium encoded with executable computer program code for converting software code of a source application on a source platform into software code of a target application on a target platform, the computer program code comprising program code for:

accepting the source code of the source application to ~~analyse~~ analyze business logic of the source application;

obtaining User Interface (UI) details of the source application;

receiving a validation scheme of a source front-end interface;  
obtaining (1) a definition of a target back-end system, (2) existing test scripts to facilitate quality control of generated software code for the target application, (3) source code entry points to business processes, (4) target environment specification including the target platform, languages to be used, target database, coding standards, target architecture and framework, (5) third party components, (6) existing applications to be plugged with the target application, and (7) sample code for the target application;

analysing analyzing provided source schemes to create target schemes;  
analysing analyzing the business logic of the source application to create workflow diagrams that represent processes of the source application;  
identifying code segments of the source application;  
analysing analyzing the target environment to generate a target architecture and associated technology;

responsive to no existing knowledge base for the software code conversion existing, generating a custom knowledge base for the software code conversion, wherein the custom knowledge base comprises a relational database comprising source and target code patterns and attributes and residing on a non-transitory computer-readable storage medium;

converting the source code into a format of the target environment specification using fuzzy rules, wherein the source code is passed through a knowledge engine for a plurality of iterations, the knowledge engine remains coupled to the custom knowledge base during the plurality of iterations for conversion of the source code into the format of the target environment specification, the custom knowledge base is updated to include additional structured information of the source platform and the source application with respect to the target platform and the target environment specification after each iteration to cause the knowledge engine to enhance source code conversion in

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subsequent iterations; and

generating a report comprising a portion of the source code of the source application that is not converted automatically for manual conversion.

END OF THE AMENDED CLAIMS

## ALLOWABLE SUBJECT MATTER

6. The following is an examiner's statement of reasons for allowance:

As Applicants' pointed out in the Remarks, pages 10-13, the prior art of record do not disclose and/or fairly suggest at least amended claimed limitations as recited in such manners in each of independent claims 1, 7 and 13 that include "converting the source code into a format of the target environment specification using fuzzy rules", thus none of the cited references explicitly discloses or implicitly suggests/acknowledges interpreting source code to analyze the business logic of the source application using fuzzy logic routines.

Further, the prior arts of record do not entirely discloses accepting the source code of the source application to analyze business logic of the source application including receiving a validation scheme of a source front-end interface along with a definition of a target back-end system, and utilizing test scripts to facilitate quality control of generated software code for intended target application.

Prior arts of record also do not entirely teach generating a custom knowledge base for the software code conversion in response to realizing that of no existence of any knowledge base for specific migration process which the generated knowledge base consisting relational data base comprising source and target code patterns and attributes thereon, knowledge engine remains coupled to the custom knowledge base during

plurality of iterations for conversion of the source code into a format of the target environment specification.

Based on applicant's remarks, prior art reference, and further consideration/search, Examiner concluded that the claimed invention as set forth in each of the independent claims in the subjected application are allowable; therefore, dependent claims set forth in the application are also allowed.

Any comments considered necessary by applicants must be submitted no later than the payment of issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reason For Allowance".

## Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ZIAUL A. CHOWDHURY whose telephone number is (571)270-7750. The examiner can normally be reached on Monday Thru Friday, 7:30AM To 9:00PM, Alternet Friday, Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TUAN Q. DAM can be reached on 571-272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/ZIAUL A. CHOWDHURY/

Examiner, Art Unit 2192

/Thuy Dao/

Primary Examiner, Art Unit 2192